MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2019/2020

BFE2074 – FINANCIAL ECONOMICS
(All sections / Groups)

3 MARCH 2020
2.30 p.m - 4.30 p.m
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of **SEVEN (7)** pages, including the cover page and formula sheet.

2. There are **FOUR (4)** questions, attempt all of them. Each question carries equal marks; and distribution of the marks for each sub-question is given.

3. Please write all your answers in the answer booklet provided.

Question 1

(a) Illustrate a simple balance sheet of the central banks of Malaysia (Bank Negara Malaysia) and the U.S. (Federal Reserve). Show in your diagram the effect on the component of the monetary base of each nation of the Bank Negara Malaysia selling US$1 million bank deposits. Assume that the spot exchange rate is RM3.90 per US dollar (RM/US$).

(6 marks)

(b) Suppose that the reserve requirement in the U.S. is 10 percent and that the reserve requirement in Malaysia is 8 percent. Also suppose that the monetary base consists of transaction deposits. Using information in part (a), what is the maximum possible change in the money stock in each nation?

(6 marks)

(c) Suppose Malaysia partially sterilizes the foreign exchange transaction in part (a) by buying RM1,800,000 million of securities. What is the total change in the Malaysian money stock that result from both the foreign exchange transaction and the open-market operation? Include the balance sheet of Malaysia in your answer.

(6 marks)

(d) Why does a central bank sterilize foreign exchange interventions when it buys or sells domestic assets in sufficient quantities?

(2 marks)

(e) Examine the monetary equilibrium condition. How is this condition important in the relationship between the nation's balance of payments and and the exchange value of its currency?

(5 marks)

[Total: 25 marks]

Continued...

Question 2

(a) Consider the following data in **Table 1** on three Malaysian bonds, denoted as bond A, bond B and bond C.

Table 1

Bond	Term to Maturity	Current Annual Yield
A	3 years	20 percent
B	7 years	17 percent
C	10 years	15 percent

   (i) If these bonds are equally risky, then what factor might most likely explain the pattern of yields exhibited by these bonds? Explain what happens to the price of bonds when there are changes in this factor.

(3 marks)

   (ii) If the face value of bond A is RM10,000, calculate the discounted present value of this bond for the 3-year period. What does this value imply?

(6 marks)

(b) If a perpetuity bond pays RM200 per year infinitely, calculate the price of the bond when the market interest rate is
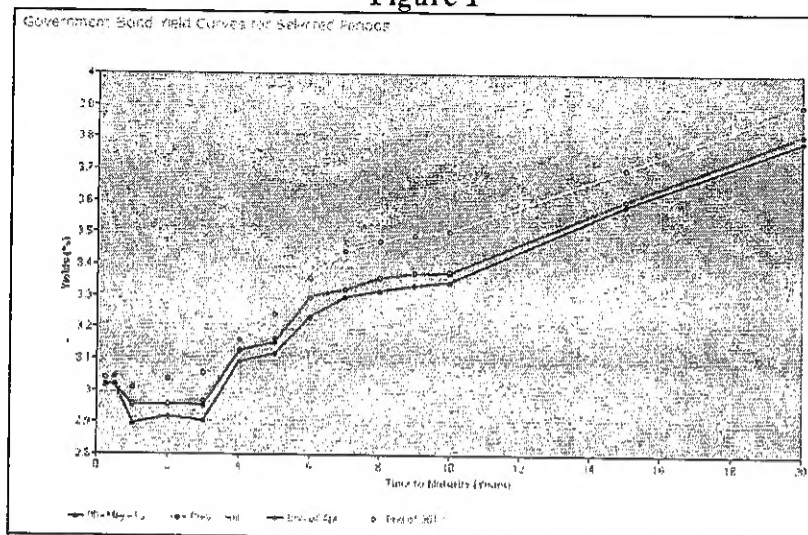
   (i) 5 percent.

(2 marks)

   (ii) 6 percent.

(2 marks)

Through your calculations in part (b)(i) and (b)(ii), examine what can be concluded regarding the relationship between bond price and nominal interest rate.

(3 marks)

Continued...

(c)

Figure 1

Government Bond Yield Curves for Selected Periods

Based on the trend portrayed in **Figure 1**, the yield curves slope upward. Examine the **THREE (3)** theories that cause these curves to typically slope in such a way.

(9 marks)

[Total: 25 marks]

Question 3

(a) Consider the following data for a given year (in RM billions) in **Table 2** and calculate gross domestic product.

Table 2

Item	Amount (RM billion)
Consumption spending	4,000
Net interest	600
Rental income	200
Investment spending	1,300
Profits	750
Wages and salaries	5,000
Depreciation	100
Government spending	1,500
Net export spending	-200

(3 marks)

Continued...

(b) Suppose that in Japan, the value of the marginal propensity to save (MPS) is 0.2 and the value of the marginal propensity to consume (MPC) is 0.5.

(i) Calculate the marginal propensity to import (MPIM).

(2 marks)

(ii) If disposable income in Japan were to rise from ¥90 trillion to ¥100 trillion, by how much would Japan consumption rise? By how much would its saving rise? By how much would its import rise?

(6 marks)

(iii) Based on your findings in Question 3(b)(i) and 3(b)(ii), what can be concluded about the relationship between consumption, saving, imports and disposable income?

(2 marks)

(c) With the support of a diagram, explain why a currency depreciation shifts the BP schedule rightward.

(4 marks)

(d) Suppose that a national government adopts, and is able to enforce a system of capital controls that permits low flows of financial resources across is borders, so that the BP schedule is steep slope. Examine the effect of an expansionary fiscal policy action on the equilibrium real income and equilibrium balance of payment in such an environment.

(8 marks)

[Total: 25 marks]

Question 4

(a) Examine the relationship between money stock and the interest rate; with a support of a diagram.

(4 marks)

(b) There are many macroeconomic goals of a nation; and one of them is economic efficiency. Explain this concept.

(3 marks)

(c) Examine the TWO (2) methods under an expansionary monetary policy.

(4 marks)

Continued...

(d)   Consider a nation in which the demand for money is relatively stable. Export and import expenditures have fluctuated considerably in recent years, however, and political instability has led to considerable variation in government spending. If the country's primary goal is real income stability, should it adopt a system of fixed or floating exchange rates? Justify your answer and support it with a graphs comparing fixed and floating exchange rates.

(14 marks)

[Total: 25 marks]

End of Question

Formula Sheet

1. Elasticity of foreign exchange $= \left[\dfrac{\left(\dfrac{\text{New quantity - Old quantity}}{\left(\dfrac{\text{New quantity + Old quantity}}{2} \right)} \right) * 100}{\left(\dfrac{\text{New foreign exchange - Old foreign exchange}}{\left(\dfrac{\text{New foreign exchange + Old foreign exchange}}{2} \right)} \right) * 100} \right]$

2. Discounted present value $= \dfrac{\text{Payment } n \text{ year from now}}{(1+R)^n}$

3. $P_B = \dfrac{C}{R}$

4. $I = \dfrac{\left(R_1 + R_2^e \right)}{2}$

5. $r = r*$

6. Money multiplier $= \dfrac{1}{\text{Required reserve ratio}}$

7. $MPC = \dfrac{\Delta \text{ in C}}{\Delta \text{ in Y}}$

8. $MPS = \dfrac{\Delta \text{ in S}}{\Delta \text{ in Y}}$

End of Page